

possibly occurs more generally in northern India than is believed. Occurrence of 201 grebes at Charakla salt pans is the largest number recorded from Indian territory.

We are obliged to Shri Fatehsingh Jasol, I.A.S., of Gujarat, for information regarding the presence of the grebes. We also thank the Indian Council of Agricultural Research, New Delhi,

for financial support.

June 9, 1997

B.M. PARASHARYA
AESHITA MUKHERJEE
Project on Wetland Birds
Biocontrol Laboratory
Gujarat Agricultural University
Anand-388 110.

REFERENCES

- ALI, S. (1945): The Birds of Kutch, Oxford University Press, Delhi.
- ALI, S. (1954): The Birds of Gujarat, Part-I. *J. Bombay nat. Hist. Soc.* 52 (2 & 3): 374-458.
- ALI, S. & S.D. RIPLEY (1983): Handbook of the Birds of India and Pakistan (Compact Ed.) Oxford University Press, Delhi, pp 737.
- DHARMAKUMARSINHJI, K.S. (1952): Blacknecked Grebe *Podiceps nigricollis* Brehm in Bhavnagar. *J. Bombay nat. Hist. Soc.* 50 (3): 664.
- NAIK, R. M., M.S. MURTHY, A.P. MANSURY, Y.N. RAO, R. PRAVEZ, T. MUNDKAR, S. KRISHNAN, P.J. FALDU & T.S.V.R. KRISHNA (1991): Coastal marine ecosystems and anthropogenic pressure in the Gulf of Kachchh. Final report submitted to WWF-India. Dept. Biosciences, Saurashtra Univ., Rajkot.
- RIPLEY, S.D. (1982): A synopsis of the birds of India and Pakistan (Second Ed.). Bombay Natural History Society. Oxford University Press, Mumbai.

6. ON THE OCCURRENCE OF THE LESSER FRIGATE BIRD (*FREGATA MINOR*) IN MUMBAI, INDIA

On the evening of 18th June 1996, a strong wind started blowing from the sea, stirring up high waves. The storm continued throughout the night, with the wind blowing upto 80 km per hr. In the night several big ships drifted towards the shore and were stranded. The storm skirted Mumbai and went on towards Gujarat. The next morning it was cloudy, with the wind still blowing, but not as strong as it had been in the night.

In the morning two frigate birds were noticed from the 13th floor of a building overlooking Mumbai harbour. The birds were flying around quite high, with considerable ease on long wings. They looked completely dark brown, with longish forked tail and pale brown band on the underwing. They were about the size of a kite but a lot slimmer. Thrice the birds came very close to the building and could be examined quite closely. They were identified as lesser frigate birds (*Fregata minor*). We looked out for

white patches under the wing but there were none. Comparing a published description and the birds seen, we concluded that the birds appeared to be males.

The only Indian specimen of lesser frigate bird is that of a storm blown one found entangled in a fishing net near Quilon, Kerala. The last sight records from the west coast are from Mumbai 43 years ago (Taylor 1953). Two recent sight records are from the eastern coast, both storm blown birds. Balachandran *et al.* (1984) sighted a straggler at Point Calimere on 23rd Dec. 1983 and Rao and Mohapatra (1992) at Sriharikota on 29th July, 1991.

November 18, 1996 KIRAN SRIVASTAVA
13, Meherdad, Cuffe Parade,
Mumbai-400 021.
NITIN JAMDAR
5-A, Samata, near Mantralaya,
Gen. J. Bhosale Road, Mumbai-400 021.

REFERENCES

- BALACHANDRAN, S., S. ALAGAR RAJAN, P. BALASUBRAMANIAN, V. NATARAJAN & SHAHID Q. ALI (1986): Storm Blown Pelagic birds in Point Calimere. *J. Bombay nat. Hist. Soc.* 83 (2): 436.
- RAO, P. & K.K. MOHAPATRA (1992): Occurrence of the Lesser Frigate Bird *Fregata minor* in Andhra Pradesh, *J. Bombay nat. Hist. Soc.* 90 (2): 284.
- TAYLOR, R.M.S. (1953): Lesser Frigate Birds (*Fregata minor*) in Bombay. *J. Bombay nat. Hist. Soc.* 51(4): 939.

7. CANNIBALISM IN WOOLLYNECKED STORK *CICONIA EPISCOPUS*

Cannibalism has been observed in the family Ciconiidae, but this behaviour has never been reported for the woollynecked stork *Ciconia episcopus*. I observed this strange behaviour while studying the breeding biology of the woollynecked stork in Keoladeo National Park, Bharatpur, India.

In India, the woollynecked stork starts breeding with the onset of monsoon. I observed breeding from 1994 to 1996, In 1996, the nest under observation was at a height of 3 m from the ground on a kadamb tree (*Mitragyna parvifolia*) and observations were taken from a hide 10 m away. I could identify the sexes by their behaviour and facial markings. The male had a dark face with dark black lines around the eyes, while the female was lighter in colour. Both parents shared incubation and collection of nesting material. On 1 August 1996, the eggs began to hatch after 30 days of incubation. There were three nestlings in the nest with three days interval from first to last hatching. The eldest nestling was dominant in picking up the food regurgitated by the adults on the nest floor. On 24 August 1996, the nest was observed for 11 hours but the youngest nestling could not be seen for the whole day, even when the adults came to feed them. In order to determine whether the smallest chick was missing, I climbed the tree and observed the nest from a high branch. The youngest chick was lying dead on the nest floor, while the two elder chicks sat quietly.

I could not go to the nest the next day due to continuous rain. A day later, I reached the hide at 0620 hrs and saw the dead nestling's body, which had started decomposing, dangling on the

rim of the nest. A few minutes later, the male fed the two nestlings on what appeared to be dead bird material and was clearly not the usual food such as earthworms, amphibians or fish.

The adult male stood on the nest. When two house crows (*Corvus splendens*) tried to take the dead nestling, the adult successfully threatened them by raising the feathers of the head and foreneck, thus appearing very large.

At 0645 hrs the adult male started pulling at the head of the dead nestling, which was covered with a thick swarm of flies. Whenever the adult tried to pull it, hundreds of flies flew off with a buzzing sound. As the dead body of the nestling was entangled in the long sticks of the nest, it could not be pulled out. After some time, the female came with leaves of jamun (*Syzygium cumini*) and arranged them on the nest floor. In the meanwhile, the male flew away. The female also tried to remove the dead nestling and at 0759 hrs succeeded. The female immediately ate the head of the nestling. This confirmed that the dead bird fed earlier to the nestlings had been the dead chick. Soon the female left the nest. The male arrived at 0805 hrs with nesting material. At 0844 hrs the female again brought jamun leaves to the nest and arranged them on the nest, while the two nestlings begged for food. Almost immediately, she regurgitated the whole head on the nest floor, and it was immediately swallowed up by the elder nestling.

This may be a case of induced cannibalism and several factors could be responsible. For instance, if the adults had discarded the entangled dead nestling, it would have attracted predators such as crows and raptors. To avoid the chances